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EXAMINER	
HERNANDEZ, NELSON D	
ART UNIT	**PAPER NUMBER**
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DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/635,847	KONISHI ET AL.	
	Examiner	Art Unit	
	Nelson D. Hernandez	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18,21 and 29-31* is/are rejected.

7)☒ Claim(s) *19,20,22-28 and 32* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 March 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The Examiner acknowledges the amended claims filed on June 27, 2006. Claims 1, 9, 14 and 23 have been amended. Claims 24-32 have been newly added.

Response to Arguments

2. Applicant's arguments, see pages 14-22, filed June 27, 2006, with respect to the rejection(s) of claim(s) 1-23 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 14 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Ishihara, US Patent 6,091,513.

Regarding claim 14, Ishihara discloses an image processing method, comprising: retrieving a first image data (original image 36 as shown in fig. 6);

generating a plurality of second image data based on the first image data (See images in memory 30 as shown in fig. 6); and storing each of the plurality of second image data into a memory (Memory 34 as shown in fig. 34), wherein a combination of imaging parameters and values applied to generate each second image data is unique for each second image data among the plurality of second image data (See fig. 6, processors 24, 26, 28, 30 and 32 having parameters different from each other; see also images different from each other in memory 30), and wherein the memory is a non-volatile memory (Col. 18, line 65 – col. 19, line 10) (Col. 12, line 4 – col. 13, line 48).

Regarding claim 15, Ishihara discloses that the step of generating the plurality of second image data includes directly processing the first image when generating each of the plurality of second image data (Col. 12, line 4 – col. 13, line 48).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, 3, 4, 6, 7, 9, 11, 12 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishihara, US Patent 6,091,513 in view of Boies, US Patent 5,426,732.

Regarding claim 1, Ishihara discloses an image signal processor (Fig. 6: 18) for performing image processing on a first image signal (original image 36 as shown in fig.

6) representative of an image of a subject field to produce a plurality of second image signals (See images in memory 30 as shown in fig. 6), comprising: a first memory (Fig. 6: 34; Ishihara also discloses that the image signal processor may also comprise a main memory for loading the processing program) for storing the first image signal; a plurality of image processors (Fig. 6, items 24, 26, 28, 30 and 32) for each performing image processing on the stored first image signal to produce the plurality of second image signals, wherein all second image signals are different from each other (See images different from each other in memory 30 as shown in fig. 6); and a second memory (Memory 34 as shown in fig. 34) for storing each of the plurality of second image signals produced, wherein said plurality of image processors include types and parameters of the image processing such that at least one of the types and parameters of the image processing are different between said plurality of image processors (The image is being recorded at different resolutions, this reads as having different parameters), and wherein said second memory is a non-volatile memory (Col. 18, line 65 – col. 19, line 10) (Col. 12, line 4 – col. 13, line 48).

Ishihara discloses storing the original and the plurality of generated images in the same memory but does not explicitly disclose that the original image is stored in the first memory and the plurality of generated images are stored in a second memory and that the image is captured by an imaging device.

However, storing an original image captured by an image capturing unit in a memory and storing a plurality of generated images from the first images in a second memory is notoriously well known in the art as taught by Boies. Boies discloses an

image signal processor (See figs. 1: 26 and 3: 26) for performing image processing on a first image signal representative of an image of a subject field captured by an imaging device to produce a plurality of second image signals, comprising: a first memory (Fig. 1: 24) for storing the first image signal; a plurality of image processors (See fig. 3, processors 42, 44 and 46 in the display processing unit 26) for each performing image processing on the stored first image signal to produce the plurality of second signals, wherein all second image signals are different from each other (see images in display screen 30 shown in figs. 1 and 2, displaying the images with different image transformation done (image pan, tilt, and zoom transformations)); and a second memory (Fig. 1: 28) for storing each of the plurality of second image signals produced, wherein said plurality of image processors include types and parameters of the image processing are different between said plurality of image processors (image pan, tilt, and zoom transformations) (Col. 4, lines 21-55; col. 6, line 42 – col. 7, line 6). Boies also discloses that the generated images can be sent to a printer to obtain a hard copy of said generated images (Col. 5, lines 22-32)

Therefore, taking the combined teaching of Ishihara in view of Boies as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ishihara by receiving the original image from a camera to perform processing and to store the original image and the plurality of generated images in different memories. The motivation to do so would have been to improve the processing speed of the image signal processor by having a separate memory to be

used as a working memory while a different memory is receiving the image processing output.

Regarding claim 3, the combined teaching of Ishihara in view of Boies as applied to claim 1 teaches that each of said plurality of image processors (See Ishihara, fig. 6, items 24, 26, 28, 30 and 32; Boies fig. 3, processors 42, 44 and 46 in the display processing unit 26) corresponds to a plurality of display units (Boies, figs. 1: 30 and 2: 30) unit which are provided for visualizing the images represented by the plurality of second image signals (See Boies, fig. 1 and 2) stored in said second memory (See Boies, fig. 1: 28), each of said plurality of image processors processing, according to the parameters, the plurality of second image signals to be displayed on one of the plurality of display units which corresponds to said image processor. (See Ishihara, Col. 19, lines 11-17; Boies, col. 4, lines 21-55; col. 6, line 42 – col. 7, line 6).

Regarding claim 4, the combined teaching of Ishihara in view of Boies as applied to claim 1 teaches that the plurality of display units include a CRT (Cathode Ray Tube) display (See Ishihara, Col. 19, lines 11-17; Boies teaches using a display screen in fig. 1: 30) and an image printer (See Ishihara, col. 9, line 31 – col. 10, line 44; Boies, col. 5, lines 22-32).

Regarding claim 6, the combined teaching of Ishihara in view of Boies as applied to claim 1 teaches that the second memory is detachably connected to the image signal processing (See Ishihara, Col. 19, lines 11-17). Grounds for rejecting claim 1, apply here.

Regarding claim 7, Ishihara discloses an image signal processor (Fig. 6: 18) for performing image processing on a first image signal (original image 36 as shown in fig. 6) representative of an image of a subject field to produce a second image signal (See images in memory 30 as shown in fig. 6), comprising: a first memory (Fig. 6: 34; Ishihara also discloses that the image signal processor may also comprise a main memory for loading the processing program) for storing therein the first image signal; a plurality of image processors (Fig. 6, items 24, 26, 28, 30 and 32) for each performing image processing, different from each other, on the stored first image signal to produce a third image signal different from each other (See images different from each other in memory 30 as shown in fig. 6); a second memory (Memory 34 as shown in fig. 34) for storing therein the third image signals produced, and an image composer (second reduction processing unit 32 and third reduction processing unit 34 as shown in fig. 6) circuit for composing the third image signals to produce the second image signal (the virtual image 38 (third image signal), which is generated from the original image (first image signal) is then converted into a target image 40 (second image signal); see col. 13, lines 3-13), wherein said plurality of image processors include types and parameters of the image processing such that at least one of the types and parameters of the image processing are different between said plurality of image processors (See fig. 6, processors 24, 26, 28, 30 and 32 having parameters different from each other) (Col. 12, line 4 – col. 13, line 48).

Ishihara discloses storing the original and the plurality of generated images in the same memory but does not explicitly disclose that the original image is stored in the first

memory and the plurality of generated images are stored in a second memory and that the image is captured by an imaging device.

However, storing an original image captured by an image capturing unit in a memory and storing a plurality of generated images from the first images in a second memory is notoriously well known in the art as taught by Boies. Boies discloses an image signal processor (See figs. 1: 26 and 3: 26) for performing image processing on a first image signal representative of an image of a subject field captured by an imaging device to produce a plurality of second image signals, comprising: a first memory (Fig. 1: 24) for storing the first image signal; a plurality of image processors (See fig. 3, processors 42, 44 and 46 in the display processing unit 26) for each performing image processing on the stored first image signal to produce the plurality of second signals, wherein all second image signals are different fro each other (see images in display screen 30 shown in figs. 1 and 2, displaying the images with different image transformation done (image pan, tilt, and zoom transformations)); and a second memory (Fig. 1: 28) for storing each of the plurality of second image signals produced, wherein said plurality of image processors include types and parameters of the image processing are different between said plurality of image processors (image pan, tilt, and zoom transformations) (Col. 4, lines 21-55; col. 6, line 42 – col. 7, line 6). Boies also discloses that the generated images can be sent to a printer to obtain a hard copy of said generated images (Col. 5, lines 22-32)

Therefore, taking the combined teaching of Ishihara in view of Boies as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify Ishihara by receiving the original image from a camera to perform processing and to store the original image and the plurality of generated images in different memories. The motivation to do so would have been to improve the processing speed of the image signal processor by having a separate memory to be used as a working memory while a different memory is receiving the image processing output.

Regarding claim 9, Ishihara discloses a method of processing a first image signal (original image 36 as shown in fig. 6) representative of an image of a subject field device to produce a plurality of second image signals (See images in memory 30 as shown in fig. 6), comprising the steps of: storing the first image signal in a first memory (Fig. 6: 34; Ishihara also discloses that the image signal processor may also comprise a main memory for loading the processing program); performing image processing (Using image processors 24, 26, 28, 30 and 32 as shown in fig. 6) on the stored first image signal according to parameters of image processing different from each other (See fig. 6, processors 24, 26, 28, 30 and 32 having parameters different from each other) to produce the plurality of second image signals (See images different from each other in memory 30 as shown in fig. 6); and storing each of the produced plurality of second image signals in a second memory (Memory 34 as shown in fig. 34), wherein the second memory is a non-volatile memory (Col. 18, line 65 – col. 19, line 10) (Col. 12, line 4 – col. 13, line 48).

Ishihara discloses storing the original and the plurality of generated images in the same memory but does not explicitly disclose that the original image is stored in the first

memory and the plurality of generated images are stored in a second memory and that the image is captured by an imaging device.

However, storing an original image captured by an image capturing unit in a memory and storing a plurality of generated images from the first images in a second memory is notoriously well known in the art as taught by Boies. Boies discloses an image signal processor (See figs. 1: 26 and 3: 26) for performing image processing on a first image signal representative of an image of a subject field captured by an imaging device to produce a plurality of second image signals, comprising: a first memory (Fig. 1: 24) for storing the first image signal; a plurality of image processors (See fig. 3, processors 42, 44 and 46 in the display processing unit 26) for each performing image processing on the stored first image signal to produce the plurality of second signals, wherein all second image signals are different fro each other (see images in display screen 30 shown in figs. 1 and 2, displaying the images with different image transformation done (image pan, tilt, and zoom transformations)); and a second memory (Fig. 1: 28) for storing each of the plurality of second image signals produced, wherein said plurality of image processors include types and parameters of the image processing are different between said plurality of image processors (image pan, tilt, and zoom transformations) (Col. 4, lines 21-55; col. 6, line 42 – col. 7, line 6). Boies also discloses that the generated images can be sent to a printer to obtain a hard copy of said generated images (Col. 5, lines 22-32)

Therefore, taking the combined teaching of Ishihara in view of Boies as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify Ishihara by receiving the original image from a camera to perform processing and to store the original image and the plurality of generated images in different memories. The motivation to do so would have been to improve the processing speed of the image signal processor by having a separate memory to be used as a working memory while a different memory is receiving the image processing output.

Regarding claims 11 and 12, the combined teaching of Ishihara in view of Boies as applied to claims 1 and 9 teaches that each of said plurality of image processors directly receives the stored first image signal as input (See Ishihara, col. 12, line 4 – col. 13, line 48; Boies, fig. 1, image signals input directly to the image processor; see also fig. 3). Grounds for rejecting claim 1, apply here.

Regarding claim 29, limitations can be found in claim 1.

7. **Claims 2, 5, 8, 10, 13, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishihara, US Patent 6,091,513 in view of Boies, US Patent 5,426,732 and further in view of Moriya, US Patent 5,754,709.**

Regarding claim 2, claim 2 is written in a Markush type by using the expression "include at least one selected from a group consisting of a change of brightness, a change of gradation change characteristics, a correction of a color temperature, a change of saturation, a change of a contour, a change of a compression ratio and a change of a black level of the first image signal stored in said first memory", meeting one species of a genus family anticipates the claimed subject matter. "A generic claim

cannot be allowed to an applicant if the prior art discloses a species falling within the claimed genus." The species in that case will anticipate the genus. In re Slayter, 276 F.2d 408, 411, 125 USPQ 345, 347 (CCPA 1960); In re Gosteli, 872 F.2d 1008, 10 USPQ2d 1614 (Fed. Cir. 1989).

The combined teaching of Ishihara in view of Boies teaches that the plurality of different image processors perform image processing on the first image signal stored in the first memory according to the parameters of image processing but does not explicitly disclose that the types of image processing performed by each of said plurality of image processors include at least one selected from a group consisting of a change of brightness, a change of gradation change characteristics, a correction of a color temperature, a change of saturation, a change of a contour, a change of a compression ratio and a change of a black level of the first image signal stored in said first memory.

However, Moriya teaches a method an apparatus for gradation correction and image edge extraction (See figs. 4(a) and 4(b)), comprising an image dividing means for dividing the image into dark and bright areas in order to perform gradation correction to de divided image, wherein the dark image is subjected to gradation correction (See fig. 4(b): 4) while the bright image is left as it is (this teaches that the second images as processed using different parameters). After the images are processed separately, they are synthesized by an image synthesizing means (Fig. 4(b): 5) and output by the image output means (Fig. 4(b): 7) (Col. 2, lines 35-65; col. 5, lines 16-50; col. 6, lines 6-25).

Therefore, taking the combined teaching of Ishihara in view of Boies and further in view of Moriya as a whole, it would have been obvious to one of ordinary skill in the

art at the time the invention was made to modify Boies and Ishihara by having the image processors performing a change of gradation change characteristics to the first image signal stored in said first memory. The motivation to do so would have been to accurately extract the edges of a region within an image as suggested by Moriya (Col. 2, lines 43-48).

Regarding claim 5, limitations can be found in claim 2.

Regarding claim 8, limitations can be found in claim 2.

Regarding claim 10, claim 10 is written in a Markush type by using the expression "include at least one selected from a group consisting of a change of brightness, a change of gradation change characteristics, a correction of a color temperature, a change of saturation, a change of a contour, a change of a compression ratio and a change of a black level of the first image signal stored in said first memory", meeting one species of a genus family anticipates the claimed subject matter. "A generic claim cannot be allowed to an applicant if the prior art discloses a species falling within the claimed genus." The species in that case will anticipate the genus. In re Slayter, 276 F.2d 408, 411, 125 USPQ 345, 347 (CCPA 1960); In re Gosteli, 872 F.2d 1008, 10 USPQ2d 1614 (Fed. Cir. 1989).

Ishihara discloses an imaging apparatus (Fig. 6: 18) comprising: a first memory (Fig. 6: 34; Ishihara also discloses that the image signal processor may also comprise a main memory for loading the processing program) for storing therein the first image signal (original image 36 as shown in fig. 6); a plurality of image processors (Fig. 6, items 24, 26, 28, 30 and 32) for each performing image processing, different from each

other (See fig. 6, processors 24, 26, 28, 30 and 32 having parameters different from each other), on the stored first image signal to produce the second image signal different from each other (See images different from each other in memory 30 as shown in fig. 6); a second memory (Memory 34 as shown in fig. 34) for storing therein the second image signals produced; and an image composer circuit (second reduction processing unit 32 and third reduction processing unit 34 as shown in fig. 6) for composing the second image signals to produce a third image signal (the virtual image 38 (third image signal), which is generated from the original image (first image signal) is then converted into a target image 40 (second image signal), said plurality of image processors including types and parameters of the image processing such that at least one of the types and parameters of the image processing are different between said plurality of image processors (See fig. 6, processors 24, 26, 28, 30 and 32 having parameters different from each other) (Col. 12, line 4 – col. 13, line 48).

Ishihara discloses storing the original and the plurality of generated images in the same memory but does not explicitly disclose that the original image is stored in the first memory and the plurality of generated images are stored in a second memory and an imaging device for capturing an image of a subject field and producing a first image signal representative of the subject field; an image composer circuit for composing the second image signals to produce a third image signal, that the types of image processing including at least one selected from a group consisting of a change of brightness, a change of gradation change characteristics, a correction of a color temperature, a change of saturation, a change of a contour, a change of a compression

ratio and a change of a black level of the first image signal stored in said first memory, the parameters of image processing being of the at least one selected from the group, whereby said plurality of image processors perform the image processing of the at least one selected from the group on the first image signal stored in said first memory according to the parameters of image processing.

However, storing an original image captured by an image capturing unit in a memory and storing a plurality of generated images from the first images in a second memory is notoriously well known in the art as taught by Boies. Boies discloses an image signal processor (See figs. 1: 26 and 3: 26) for performing image processing on a first image signal representative of an image of a subject field captured by an imaging device to produce a plurality of second image signals, comprising: a first memory (Fig. 1: 24) for storing the first image signal; a plurality of image processors (See fig. 3, processors 42, 44 and 46 in the display processing unit 26) for each performing image processing on the stored first image signal to produce the plurality of second signals, wherein all second image signals are different fro each other (see images in display screen 30 shown in figs. 1 and 2, displaying the images with different image transformation done (image pan, tilt, and zoom transformations)); and a second memory (Fig. 1: 28) for storing each of the plurality of second image signals produced, wherein said plurality of image processors include types and parameters of the image processing are different between said plurality of image processors (image pan, tilt, and zoom transformations) (Col. 4, lines 21-55; col. 6, line 42 – col. 7, line 6). Boies also

discloses that the generated images can be sent to a printer to obtain a hard copy of said generated images (Col. 5, lines 22-32).

Therefore, taking the combined teaching of Ishihara in view of Boies as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ishihara by having an imaging device for capturing an image of a subject field and producing a first image signal representative of the subject field and receiving said first image from a camera to perform processing and to store the original image and the plurality of generated images in different memories. The motivation to do so would have been to direct input images form a camera minimizing the steps of inputting an image from a camera to a computer and then to a printer and to improve the processing speed of the image signal processor by having a separate memory to be used as a working memory while a different memory is receiving the image processing output.

The combined teaching of Ishihara in view of Boies fails to teach an image composer circuit for composing the second image signals to produce a third image signal, that the types of image processing including at least one selected from a group consisting of a change of brightness, a change of gradation change characteristics, a correction of a color temperature, a change of saturation, a change of a contour, a change of a compression ratio and a change of a black level of the first image signal stored in said first memory, the parameters of image processing being of the at least one selected from the group, whereby said plurality of image processors perform the

image processing of the at least one selected from the group on the first image signal stored in said first memory according to the parameters of image processing.

However, Moriya teaches a method an apparatus for gradation correction and image edge extraction (See figs. 4(a) and 4(b)), comprising an image dividing means for dividing the image into dark and bright areas in order to perform gradation correction to de divided image, wherein the dark image is subjected to gradation correction (See fig. 4(b): 4) while the bright image is left as it is (this teaches that the second images as processed using different parameters). After the images are processed separately, they are synthesized by an image synthesizing means (Fig. 4(b): 5) and output by the image output means (Fig. 4(b): 7) (Col. 2, lines 35-65; col. 5, lines 16-50; col. 6, lines 6-25).

Therefore, taking the combined teaching of Ishihara in view of Boies and further in view of Moriya as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Boies by having an image composer circuit for composing the third image signals to produce the second image signal and having the image processors performing a change of gradation change characteristics to the first image signal stored in said first memory. The motivation to do so would have been to accurately extract the edges of a region within an image as suggested by Moriya (Col. 2, lines 43-48).

Regarding claim 13, limitations can be found in claim 2.

Regarding claims 30 and 31, the combined teaching of Ishihara in view of Boies and further in view of Moriya as applied to claim 7 and 10 teaches that the second

memory is a non-volatile memory (See Ishihara, col. 18, line 65 – col. 19, line 10). Grounds for rejecting claim 1 also apply here.

8. Claims 16-18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishihara, US Patent 6,091,513 in view of Moriya, US Patent 5,754,709.

Regarding claim 16, claim 16 is written in a Markush type by using the expression "include at least one of gain, gradation control, luminance-chrominance, edge enhancement, saturation emphasis, and compression ratio.", meeting one species of a genus family anticipates the claimed subject matter. "A generic claim cannot be allowed to an applicant if the prior art discloses a species falling within the claimed genus." The species in that case will anticipate the genus. In re Slayter, 276 F.2d 408, 411, 125 USPQ 345, 347 (CCPA 1960); In re Gosteli, 872 F.2d 1008, 10 USPQ2d 1614 (Fed. Cir. 1989).

Ishihara does not explicitly disclose that the imaging parameter includes at least one of gain, gradation control, luminance-chrominance, edge enhancement, saturation emphasis, and compression ratio.

However, Moriya teaches a method an apparatus for gradation correction and image edge extraction (See figs. 4(a) and 4(b)), comprising an image dividing means for dividing the image into dark and bright areas in order to perform gradation correction to de divided image, wherein the dark image is subjected to gradation correction (See fig. 4(b): 4) while the bright image is left as it is (this teaches that the second images as

processed using different parameters). After the images are processed separately, they are synthesized by an image synthesizing means (Fig. 4(b): 5) and output by the image output means (Fig. 4(b): 7) (Col. 2, lines 35-65; col. 5, lines 16-50; col. 6, lines 6-25).

Therefore, taking the combined teaching of Ishihara in view of Moriya as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ishihara by having the image processors performing a change of gradation change characteristics to the first image signal stored in said first memory. The motivation to do so would have been to accurately extract the edges of a region within an image as suggested by Moriya (Col. 2, lines 43-48).

Regarding claim 17, limitations can be found in claim 3.

Regarding claim 18, limitations can be fund in claim 4.

Regarding claim 21, the combined teaching of Ishihara in view of Moriya as applied to claim 16 teaches dividing the first image data into a plurality of areas, each area differing in brightness (dark and bright areas); adjusting the brightness of the plurality of areas by a corresponding plurality of adjustment amounts (see Moriya, gradation correction means shown in fig. 4(b): 4); and combining the adjusted plurality of areas (See Moriya, fig. 4(b): 5). Grounds for rejecting claim 2 apply here.

Allowable Subject Matter

9. **Claims 19, 20, 22-28 and 32** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 19, the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest determining whether a brightness of the first predetermined maximum or below a predetermined minimum; and performing a black level correction on the first image data if the brightness of the first image data is determined to be above the predetermined image data is above a maximum or below the predetermined minimum in combination with all the limitations in claim 14.

Regarding claim 22, the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest that the step of adjusting the brightness includes reducing the brightness of the highlight area and increasing the brightness of the shadow area including all the existing limitations of claims 14 and 21.

Regarding claim 24, the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest a data compressor configured to compress the plurality of second image signals prior to being stored in the second memory, wherein a compression ratio for compressing each of the plurality of second image signals is based on a type of the display unit designated for the second image in combination with all the limitations in claims 1 and 3.

Regarding claim 26, the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest determining a compression ratio for each of the plurality of second image signals based on a type of the display unit

designated for the second image signal, and compressing each of the plurality of second image signals prior storing in the second memory with the determined compression ratio in combination with all the limitations in claim 9.

Regarding claim 27, the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest a data compressor configured to compress the third image signal, wherein a compression ratio for compressing the third image signal is based on a type of the display unit designated for the third image signal in combination with all the limitations in claim 10.

Regarding claim 28, the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest determining a compression ratio for each of the plurality of second image data based on a type of the display unit designated for the second image data, and compressing each of the plurality of second image data prior storing in the second memory with the determined compression ratio in combination with all the limitations in claim 14.

Conclusion

11. Because a new ground for rejection is being applied to substantively unamended claims 7 and 10, this action will be Non-Final.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nelson D. Hernandez whose telephone number is (571) 272-7311. The examiner can normally be reached on 8:30 A.M. to 6:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Examiner
Art Unit 2622

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September 17, 2006

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